

VERSION DESCRIPTION DOCUMENT FOR THE NASA EQUIPMENT MANAGEMENT SYSTEM (NEMS)

Release 6.2

NASA-NEMS-VDD-13

PrISMS Contract

December 5, 2003



National Aeronautics and
Space Administration

George C. Marshall Space Flight Center
Huntsville, AL 35812

**VERSION DESCRIPTION DOCUMENT FOR THE
NASA EQUIPMENT MANAGEMENT SYSTEM (NEMS)
RELEASE 6.2**

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NATIONAL AERONAUTICS AND SPACE ADMINISTRATION
GEORGE C. MARSHALL SPACE FLIGHT CENTER
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NATIONAL AERONAUTICS AND SPACE ADMINISTRATION
GEORGE C. MARSHALL SPACE FLIGHT CENTER
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1. INTRODUCTION

This Version Description Document (VDD) describes the changes and installation procedures for this release of the NASA Equipment Management System (NEMS). This section identifies the release, describes its purpose, defines its scope, and identifies its contact points.

1.1 IDENTIFICATION OF THE RELEASE

This software release is identified as NEMS, Release 6.2 and has an effective release date of December 5, 2003.

1.2 PURPOSE OF THE RELEASE

This release implements modifications for the following Change Control Requests (CCRs):

<u>CCR</u>	<u>Title</u>
343	Items in an 'out' status where the system allows you to make changes without any warning
344	Add REPAIR-RETURN-DUE to report 011 Daily Transaction Register
349	Journal Report does not show that records were written to the NEMS-YEARLY-TRANS file
351	Web Pending clean up old transactions
357	Make COST a descriptor on History file and CAPITALIZATION-AMT to adhoc selection
358	Electronic version of 1602
359	Enable electronic 1602 to be printed from the web
361	C56 Does Not Remove Date Repair Return Due Date
371	Return to NEMS from Super Natural
375	Increase size of 2 fields in RPT422P3
382	Improve performance for ADABAS VISTA & NEMS
384	Improve performance for NEMS and ADABAS VISTA #2

This release implements modifications necessitated by the following Discrepancy Reports (DRs):

<u>CCR</u>	<u>Title</u>
374	Inventory Transaction 06 – use #DATE-NASA-ACQ-N8
376	Custodian Number Length incorrect
377	Missing INPUT statement for Dynamic Adhoc

1.3 SCOPE

This VDD provides the functional and technical user of NEMS with information regarding the content, status, and structure of Release 6.2, including the following:

- Changes implemented since Release 6.1.1;
- Validation procedures to ensure the reliability of release changes;
- References to other documentation affected by this release;
- Detailed software installation instructions.

No waivers are associated with this release.

1.4 CONTACT POINTS

Sustaining Engineering for NEMS is provided through the Consolidation Center (CC) located at Marshall Space Flight Center (MSFC). Questions regarding the functional and/or the technical aspects as well as the installation of this release should be directed to:

The NACC Technical Services Center (Use following Key Words: SESAAS & NEMS)

Telephone: (256) 544-6673
Email: neal.cantrell@msfc.nasa.gov
FAX: (256) 544-1836

2. FUNCTIONAL INFORMATION

This section includes details regarding functional changes, functional interfaces, critical issues, affected documents, and application system administration.

2.1 FUNCTIONAL CHANGES

Please refer to Appendix C, Functional Change Validation Procedures, for a description of all functional changes related to this release. Appendix D, Installation Instructions, describes all Software PREDICT changes related to this release.

2.2 FUNCTIONAL INTERFACES

This section is not applicable for this release.

2.3 CRITICAL ISSUES

This section is not applicable for this release.

2.4 AFFECTED DOCUMENTS

The following documents were changed for this release:

NEMS Web Front End User Guide

2.5 APPLICATION SYSTEM ADMINISTRATION

There are no application system administration changes associated with this release.

3. TECHNICAL INFORMATION

This section includes details regarding technical system interfaces, data dictionary changes, software object changes, and database administration activities.

3.1 TECHNICAL SYSTEM INTERFACES

This section is not applicable with this release.

3.2 DATA DICTIONARY CHANGES

Refer to Appendix D, Section 4.0, for the data dictionary changes in this release.

3.3 SOFTWARE OBJECT CHANGES

Modules affected by this release are included in Appendix D, Section 2.2.

3.4 DATABASE ADMINISTRATION

This section describes the database administration activities for installation of this release.

3.4.1 Release Dataset Names

Refer to Appendix D, Introduction section, for the release dataset names.

3.4.2 Inventory of Objects

Refer to Appendix D, Section 2.1, for an inventory of Natural object types.

3.4.3 Storage Considerations

The changes represented by this release should not affect storage requirements.

3.4.4 Installation Procedures

Refer to Appendix D, Installation Instructions for NEMS Software Release 6.2 for detailed software installation procedures.

3.5 OPERATIONAL PREPARATION

Refer to the procedure described in Appendix D for assistance in preparing for proper installation and operational use of this release.

4. KNOWN AND OPEN PROBLEMS

There are no known or open problems related to this release

.

APPENDIX A - ABBREVIATIONS AND ACRONYMS

CC	Consolidation Center
CCR	Change Control Request
CSC	Computer Sciences Corporation
DBA	Database Administrator
DR	Discrepancy Report
FAX	Electronic Facsimile Transmission
IRM	Information Resources Management
JCL	Job Control Language
MSFC	Marshall Space Flight Center
NACC	NASA Automated Data Processing (ADP) Consolidation Center
NASA	National Aeronautics and Space Administration
NEMS	NASA Equipment Management System
NPDMS	NASA Property Disposal Management System
SESAAS	Sustaining Engineering Support for Agencywide Administrative Systems
VDD	Version Description Document

APPENDIX B - GLOSSARY

Database Administration

Responsibility for maintaining the physical database environment.

Implementation

The process by which a NASA site installs a NASA software release and places it into operational use.

Operational Preparation

Preparation by a NASA site for installation and use of a NASA application release.

System Administration

Responsibility for administrative functions such as application security and table data maintenance associated with a NASA application.

APPENDIX C - FUNCTIONAL CHANGE VALIDATION PROCEDURES

Index of validation procedures for changes in this release:

Section	CCR	Title
1.0	343	Items in a 'out' status where the system allows you to make changes without any warning
2.0	344	Add REPAIR-RETURN-DUE to report 011 Daily Transaction Register
3.0	349	Journal Report does not show that records were written to the NEMS-YEARLY-TRANS file
4.0	351	Web Pending clean up old transactions
5.0	357	Make COST a descriptor on History file and CAPITALIZATION-AMT to adhoc selection
6.0	358	Electronic version of 1602
7.0	359	Enable electronic 1602 to be printed from the web
8.0	361	C56 Does Not Remove Date Repair Return Due Date
9.0	371	Return to NEMS from Super Natural
10.0	374	Inventory Transaction 06 – use #DATE-NASA-ACQ-N8
11.0	375	Increase size of 2 fields in RPT422P3
12.0	376	Custodian Number Length incorrect
13.0	377	Missing INPUT statement for Dynamic Adhoc
14.0	382	Improve performance for ADABAS VISTA & NEMS
15.0	384	Improve performance for NEMS and ADABAS VISTA #2

Details for the validation procedures follow:

1.0 CCR 343 - Items in an 'out' status where the system allows you to make changes without any warning

The system allows you to make changes to equipment in an "out" status and we find occasions where a transaction will be performed that should not be allowed. An example would be a borrowed out item and it gets excessed or a location change made to it.

Description of Change

Code was changed to display a warning message for the following transactions: NEMS – 27, 30, 38, 40, 42, 44, 46, 50, 51, 52, 57, 60, 61, 65, 66, 67, 68, 71, 72, 73, 74, 80, 81, 85, 86, and 87; NEMS Inventory – I26, I29, I32, I33, I38, I44, I52 I67, I71, I72, I74, I80, and I81.

Functional Impact

There is no functional impact as a result of this CCR.

Validation Procedures

- Perform NEMS Change Transactions 27, 30, 38, 40, 42, 44, 46, 50, 51, 52, 60, and 61 for an ECN that is in an 'out' status.
Expected Results: Message "WARNING *** RECORD IS IN AN 'OUT' STATUS" is displayed.
- Perform NEMS Delete Transactions 65, 66, 67, 68, 71, 72, 73, 74, 80, 81, 86, 86, and 87 for an ECN that is in an 'out' status.
Expected Results: Message "WARNING *** RECORD IS IN AN 'OUT' STATUS" is displayed.
- Perform NEMS Inventory Change Transactions i26, i29, i38, I44, and I52 for an ECN that is in an 'out' status.
Expected Results: Message "WARNING *** RECORD IS IN AN 'OUT' STATUS" is displayed.
- Perform NEMS Inventory No Change Transactions I32 and I33 for an ECN that is in an 'out' status.
Expected Results: Message "WARNING *** RECORD IS IN AN 'OUT' STATUS" is displayed.
- Perform NEMS Inventory Delete Transactions I67, I71, I72, I74, I80, and I81 for an ECN that is in an 'out' status.
Expected Results: Message "WARNING *** RECORD IS IN AN 'OUT' STATUS" is displayed.

<u>MODULE ID</u>	<u>MODULE NAME</u>	<u>TYPE</u>
NEMS		
TRN000P1	Equipment File (Transaction) Update Menu	Program
NEUOCDN1	Output Warning Message for EQUIP-OUT-CODE	Subprogram

<u>NEMSINV</u>		
INVTRNP3	Change Transaction Menu	Program
NEUOCDN1	Output Warning Message for EQUIP-OUT-CODE	Subprogram

2.0 CCR 344 – Add REPAIR-RETURN-DUE to report 011 Daily Transaction Register

The REPAIR-RETURN-DUE date is not currently printed on Report 011 - Daily Transaction Register. Would like to include the REPAIR-RETURN-DUE date to the report

Description of Change

Added code to include DATE-REPAIR-RETURN-DUE to on Report 011.

Functional Impact

There is no functional impact as a result of this CCR.

Validation Procedures

- Schedule and run report 011 – Daily Transaction Register (By Trans No Exploded)
Expected Results: Report 011 will run successfully and the Repair Return Due Date will be displayed.

<u>MODULE ID</u>	<u>MODULE NAME</u>	<u>TYPE</u>
RPT011P1	Daily Transaction Register (By Trans No Exploded)	Program

3.0 CCR 349 – Journal Report does not show that records were written to the NEMS-YEARLY-TRANS file

When writing records to the NEMS-YEARLY-TRANS also do a count of the total number of records written and add message to the Journal Report.

Description of Change

Code was changed to write the count of records added to the NEMS-YEARLY-TRANS file on the Journal Report.

Functional Impact

There is no functional impact as a result of this CCR.

Validation Procedures

- Schedule and run the D07 (MSD007P1 – Daily Transaction File Delete) Maintenance Job.
Expected Results: The maintenance job should run successfully and the Journal Report should have an additional line reflecting the record count for the NEMS-YEARLY-TRANS file.

<u>MODULE ID</u>	<u>MODULE NAME</u>	<u>TYPE</u>
MSD001P1	Copy NEMS-DAILY-TRANS to NEMS-MONTH-TRANS file	Program

4.0 CCR 351 – Web Pending clean up old transactions

The NEMS-WEB-PENDING file has some old transactions that will reject due to ERN mismatches. These ECNs should be deleted from the NEMS-WEB-PENDING file.

Description of Change

A new maintenance module was created to remove old records from the NEMS-WEB-PENDING file.

Functional Impact

There is no functional impact as a result of this CCR.

Validation Procedures

- Maintenance Job M09 must be added to the Maintenance Table.
- Schedule and run the M09 (MSM009P1 – Delete Past Due NEMS Web Pending Records) Maintenance Job.
Expected Results: The maintenance job should run successfully and the records meeting the deletion criteria should be deleted from the NEMS-WEB-PENDING file.

<u>MODULE ID</u>	<u>MODULE NAME</u>	<u>TYPE</u>
MSM009P1	Delete Old Records from NEMS-WEB-PENDING file	Program

5.0 CCR 357 – Make COST a descriptor on History File and CAPITALIZATION-AMT to adhoc selection

COST is listed as an available selection on the NEMS History File Adhoc by Field but it is not a descriptor. CAPITALIZATION-AMT is a descriptor on the NEMS-HISTORY file but is not available as a selection on the NEMS History File Adhoc by Field.

Description of Change

Code was changed to include CAPITALIZATION-AMT as a selection on the NEMS History file Adhoc by Field. COST was added as a descriptor on the NEMS-HISTORY file.

Functional Impact

There is no functional impact as a result of this CCR.

Validation Procedures

- Perform the History File Adhoc by Field selecting descriptor number 19 – Capitalization Amt
Expected Results: Selection by Capitalization Amount will be a valid selection.
- Perform the History File Adhoc by Field selecting descriptor number 08 – Cost.
Expected Results: Selection by Cost will be a valid selection.

<u>MODULE ID</u>	<u>MODULE NAME</u>	<u>TYPE</u>
ADH950P1	History File Adhoc by Field	Program

6.0 CCR 358 – Electronic version of 1602

The current 1602 is produced on a 4-part form. The printers that these forms print on are becoming obsolete and need to be replaced. The forms are in need of a revision and should be redesigned and replaced with a more economical way of being produced.

Description of Change

Code was added to allow the 1602 to be produced on a plain piece of paper instead of on a 4-part form.

Functional Impact

There is no functional impact as a result of this CCR.

Validation Procedures

- (If converted to the laser printing) After ECNs have been added or changed run the batch cycle (make sure MSD005P2 has been added to the JCL).
Expected Results: A 1602 will be generated for each ECN that has been flagged by a transaction.
- Select report 832 as an on-request report and enter ECNs to be printed
Expected Results: A 1602 for each ECN entered will be produced on a valid laser printer without waiting for the overnight batch process to be executed.
- Select report 833 as an on-request report and enter ECNs to be printed.
Expected Results: The 1602 for each ECN entered will be produced out of the overnight batch process.
- Select report 834 as an on-request report and enter the Custodian Account Number for the ECNs to be printed.
Expected Results: The 1602 for each ECN that belongs to the Custodian Account Number entered will be produced out of the overnight batch process.

<u>MODULE ID</u>	<u>MODULE NAME</u>	<u>TYPE</u>
FONTMGR2	Font Manager	Program
FONTMNGR	Font Manager	Program
FORM0000	Blank Page PCL (Printer Control Language)	Subprogram
FORM1602	Form 1602 PCL (Printer Control Language)	Subprogram
FORMASC2	ASCII Trigger	Program
FORMCNVT	Convert EBCDIC to ASCII	Subprogram
FORMINVR	Convert EBCDIC to ASCII	Subprogram
MSD005N2	Produces a NEMS-1	Subprogram
MSD005P2	Produces a NEMS-1	Program
PCLFLUSH	PCL Page Flush Subroutine	Subprogram
PCLWRITE	Write General Output Using Correct Format	Subprogram
PRM832N1	Generate JCL for NEMS-1 Reports	Subprogram
PRM832P1	Produces a NEMS-1 for Specified ECNs	Program
PRM832P2	Stores JCL for NEMS-1 Laser Reports	Program
PRM833P1	NEMS-1 Selection Menu (Laser Printer)	Program

PRM834P1	NEMS-1 Selection Menu (Laser Printer)	Program
RPT832P1	Produces a NEMS-1 for Specified ECNs	Program
RPT833P1	Produces a NEMS-1 for Specified ECN	Program
RPT834P1	Produces a NEMS-1 for a Custodian	Program

7.0 CCR 359 – Enable electronic 1602 to be printed from the web

When the new electronic version of the 1602 is available the user should be able to request the 1602 to be submitted from the web.

Description of Change

Code was added to allow a 1602 to be printed from the NEMS web page.

Functional Impact

There is no functional impact as a result of this CCR.

Validation Procedures

- Select an ECN from the web page to produce a 1602 for.
Expected Results: A 1602 for each ECN selected will be produced on a valid laser printer without waiting for the overnight batch process to be executed.

<u>MODULE ID</u>	<u>MODULE NAME</u>	<u>TYPE</u>
NEW832N1	Produces a NEMS-1 for a Specified ECN	Subprogram

8.0 CCR 361 – C56 Does Not Remove Date Repair Return Due Date

NEMS PCM transaction C56 does not remove the Date Repair Return Due Date (NEMS transaction 56 does remove this date). The C56 transaction should remove the Date Repair Return Due Date along with EQUIP-OUT-CODE.

Description of Change

Code was changed to remove the Date Repair Return Due date when transaction C56 is approved by a manager.

Functional Impact

There is no functional impact as a result of this CCR.

Validation Procedures

- Execute transaction C56 against on an ECN that has had a C57 (Off-Site for Repair) processed against it. After the C56 has been processed the transaction must be approved by a manager.
Expected Results: The Date Repair Return Due date will be reset.

<u>MODULE ID</u>	<u>MODULE NAME</u>	<u>TYPE</u>
TRNUPDP8	Update Equipment File Fields	Subprogram

9.0 CCR 371 – Return to NEMS from SuperNatural

There is no longer a library named NEMS in the consolidated system. A line of code in ADH000P1 is setting up a return to a library named NEMS.

Description of Change

Code was changed to allow successful return to NEMS upon exiting SuperNatural.

Functional Impact

There is no functional impact as a result of this CCR.

Validation Procedures

- Enter SuperNatural from NEMS. Exit SuperNatural.
Expected Results: Entry back to NEMS will be successful.

<u>MODULE ID</u>	<u>MODULE NAME</u>	<u>TYPE</u>
ADH000P1	ADHOC NEMS	Program

10.0 CCR 374 - Inventory Transaction 06 – use #DATE-NASA-ACQ-N8

Inventory Transaction 06 is using #DATE-NASA-ACQ instead of #DATE-NASA-ACQ-N8.

Description of Change

Code was changed use the #DATE-NASA-ACQ-N8 field instead of the #DATE-NASA-ACQ field.

Functional Impact

There is no functional impact as a result of this CCR.

Validation Procedures

- Perform Inventory Transaction 06.
Expected Results: Transaction should execute correctly.

<u>MODULE ID</u>	<u>MODULE NAME</u>	<u>TYPE</u>
TRNI06P1	Receipt by Transfer – From Contractor	Program

11.0 CCR 375 – Increase size of 2 fields in RPT422P3

2 fields in RPT422P3 (#TOT-TXN-CNT & #TOT-LINE-CNT) need to be changed from a N4 to a N6 to prevent a size error.

Description of Change

Code was changed increase the size of the #TOT-TXN-CNT and #TOT-LINE-CNT fields

Functional Impact

There is no functional impact as a result of this CCR.

Validation Procedures

- Schedule and run the 422 report.
Expected Results: The report should run without size errors for the #TOT-TX-CNT and #TOT-LINE-CNT fields.

<u>MODULE ID</u>	<u>MODULE NAME</u>	<u>TYPE</u>
RPT422P3	1324 – Controlled Equipment Report – NEMS (Detail)	Program

12.0 CCR 376 – Custodian Number Length incorrect

The #TO-CUST-NO and #PREV-CUST-NO fields are defined as an A5 and should be defined as an A6.

Description of Change

Code was changed increase the size of Custodian Number fields to A6.

Functional Impact

There is no functional impact as a result of this CCR.

Validation Procedures

- Perform a web front-end transaction against an ECN.
Expected Results: The custodian numbers on the transactions should be A6

<u>MODULE ID</u>	<u>MODULE NAME</u>	<u>TYPE</u>
NEWLOCL1		LDA
NEWLEUN1	List Equipment Assigned to a User / Custodian Account	Subprogram

13.0 CCR 377 – Missing INPUT statement for Dynamic Adhoc

When the user selects the Daily Transaction or Monthly Transaction File by Field and attempt to display the report error NAT0384 Explicit format specification required is received.

Description of Change

Code was changed to include the INPUT statement and define the #DLOD field

Functional Impact

There is no functional impact as a result of this CCR.

Validation Procedures

- Select the Daily Transaction File by Field and enter 'D' to download NEMS-PC.
Expected Results: The first record will be displayed. Continue pressing ENTER until all records have been displayed and the NEMS Daily Trans File Adhoc by Field screen (ADH910P1) is displayed.
- Select the Monthly Transaction File by Field and enter 'D' to download NEMS-PC.
Expected Results: The first record will be displayed. Continue pressing ENTER until all records have been displayed and the NEMS Monthly Trans File Adhoc by Field screen (ADH970P1) is displayed.

<u>MODULE ID</u>	<u>MODULE NAME</u>	<u>TYPE</u>
ADH991P2	Dynamic Adhoc	Program

14.0 CCR 382 – Improve performance for ADABAS VISTA & NEMS

Improve performance for ADABAS VISTA & NEMS

Description of Change

Code was changed reduce the number of ADABAS VISTA accesses

Functional Impact

There is no functional impact as a result of this CCR.

Validation Procedures

- Released to production as an emergency release on October 23, 2003.

-

<u>MODULE ID</u>	<u>MODULE NAME</u>	<u>TYPE</u>
<u>NEMS</u>		
ADH980P1	NEMS Transfer file ADHOC by ECN	Program
HSTSEQN1	History Number Resequene (SESAAS only)	Subprogram
HSTSEQP1	History Number Resequene (SESAAS only)	Program
RPT134P2	Borrowed Equipment Return Candidate List	Program
TRNDELP1	Delete Transaction Processor	Program
TRN000P1	Equipment File (Transaction) Update Menu	Program
TRN004P1	Add Transaction 04 (Receipt by Transfer – From NASA Installation)	Program
TRN015P1	Add Transaction 15 (Reciept from Return of Record from Historical File)	Program
<u>NEMSINV</u>		
INVTRNP2	Add Transaction Menu	Program
TRNIDL1	Delete Transaction Processor	Program
TRNI04P1	Add Transaction I04 (Receipt by Transfer From NASA Installation)	Program
<u>NEMSPCM</u>		
TRNUPDP7	Add History Records	Program

15.0 CCR 384 – Improve performance for NEMS and ADABAS VISTA 2

In an effort to reduce the number of accesses the ADABAS VISTA file is receiving from NEMS a change has been identified in the NEMS navigation program.

Description of Change

Code was changed reduce the number of ADABAS VISTA accesses

Functional Impact

There is no functional impact as a result of this CCR.

Validation Procedures

- Navigate to NEMS Central and back to NEMS.
Expected results: The Navigation to NEMS Central and back to NEMS will be executed.

<u>MODULE ID</u>	<u>MODULE NAME</u>	<u>TYPE</u>
NAV100P1	NEMS Navigational and Edit Program	Program

APPENDIX D - INSTALLATION INSTRUCTIONS AND CHECKLIST FOR NEMS SOFTWARE RELEASE 6.2

Introduction

Release information:

System Name: NEMS
Release Number: 6.2
Release Date: December 5, 2003
Effective Date: Immediately

In case of installation problems, contact the NASA Automated Data Processing (ADP) Consolidation Center (NACC) Technical Services Center (Use following Key Words: SESAAS & NEMS)

Telephone: (256) 544-6673
Email: neal.cantrell@msfc.nasa.gov
FAX: (256) 544-1836

The following datasets are located on the transient storage DASD volumes under the following data sets names:

MSMOV.NEMS.PROD.R620.R1203.SRC
xxMOV.NEMS.PROD.R620.R1203.PRD

Where "xx" is replaced by the appropriate NASA Center designation.

AR - ARC
DF - DFRC
GS - GSFC
HQ - HQ
J5 - JSC
KS - KSC
LA - LaRC
LE - GRC (Glenn)
MS - MSFC
SS - SSC

Installation Sequence

The sequence in which the installation of this release should occur is provided in the following list. A checklist is provided in section 9.0 to assist in tracking the installation of this release.

- 1.0 Back Up Existing Data
- 2.0 Copy Source
- 3.0 Pre-Predict Data Conversion
- 4.0 Install Predict
- 5.0 Catalog Source Code
- 6.0 Post-Predict Data Conversion
- 7.0 Perform Release-Specific Procedures
- 8.0 Local JCL Mods
- 9.0 Installation Checklist

1.0 Back Up Existing Data

It is advisable to back up all NEMS files as a precautionary measure prior to installation.

2.0 Copy Source

This will be performed by SESAAS for the core modules. Any changes for site unique versions of these modules will be performed by the centers.

2.1 Copy Source Code

- A. Source code is installed in three separate libraries. Source code for programs modified in this release version were unloaded in the NATUNLD format; these programs all have specific destination libraries as shown below. All the NEMS programs have a destination of NEMS; NEMSINV programs have a destination of NEMSINV and NEMSPCM programs have a destination of NEMSPCM.

1. Load the NEMS source library from the dataset
MSMOV.NEMS.PROD.R620.R1203.SRC

The source programs were unloaded using the Natural utility NATUNLD. The NEMS programs:

1. ADH000P1	ADHOC NEMS	Program
2. ADH950P1	History File Adhoc by Field	Program
3. ADH980P1	NEMS Transfer file ADHOC by ECN	Program
4. ADH991P2	Dynamic Adhoc	Program
5. FONTMGR2	Font Manager	Program
6. FONTMNGR	Font Manager	Program
7. FORM0000	Blank Page PCL (Printer Control Language)	Subprogram

8. FORM1602	Form 1602 PCL (Printer Control Language)	Subprogram
9. FORMASC2	ASCII Trigger	Program
10. FORMCNVT	Convert EBCDIC to ASCII	Subprogram
11. FORMINVR	Convert EBCDIC to ASCII	Subprogram
12. HSTSEQN1	History Number Resequene (SESAAS only)	Subprogram
13. HSTSEQP1	History Number Resequene (SESAAS only)	Program
14. MSD001P1	Copy NEMS-DAILY-TRANS to NEMS-MONTH-TRANS file	Program
15. MSD005N2	Produces a NEMS-1	Subprogram
16. MSD005P2	Produces a NEMS-1	Program
17. MSM009P1	Delete Old Records from NEMS-WEB-PENDING file	Program
18. NAV100P1	NEMS Navigational and Edit Program	Program
19. NEMS	NEMS Banner Screen	Program
20. NEUOCDN1	Output Warning Message for EQUIP-OUT-CODE	Subprogram
21. NEW832N1	Produces a NEMS-1 for a Specified ECN	Subprogram
22. NEWLEUN1	List Equipment Assigned to a User / Custodian Account	Subprogram
23. NEWLOCL1		LDA
24. PCLFLUSH	PCL Page Flush Subroutine	Subprogram
25. PCLWRITE	Write General Output Using Correct Format	Subprogram
26. PRM832N1	Generate JCL for NEMS-1 Reports	Subprogram
27. PRM832P1	Produces a NEMS-1 for Specified ECNs	Program
28. PRM832P2	Stores JCL for NEMS-1 Laser Reports	Program
29. PRM833P1	NEMS-1 Selection Menu (Laser Printer)	Program
30. PRM834P1	NEMS-1 Selection Menu (Laser Printer)	Program
31. RPT011P1	Daily Transaction Register (By Trans No Exploded)	Program
32. RPT134P2	Borrowed Equipment Return Candidate List	Program
33. RPT422P3	1324 – Controlled Equipment Report – NEMS (Detail)	Program
34. RPT832P1	Produces a NEMS-1 for Specified ECNs	Program
35. RPT833P1	Produces a NEMS-1 for Specified ECN	Program
36. RPT834P1	Produces a NEMS-1 for a Custodian	Program
37. TRN000P1	Equipment File (Transaction) Update Menu	Program
38. TRN004P1	Add Transaction 04 (Receipt by Transfer – From NASA Installation)	Program
39. TRN015P1	Add Transaction 15 (Reciept from Return of Record from Historical File)	Program
40. TRNDELP1	Delete Transaction Processor	Program

will be loaded to the application library NEMS, replacing any existing programs of the same name.

2. Load the NEMSINV source library from the dataset:
MSMOV.NEMS.PROD.R620.R1203.SRC

The source programs were unloaded using the Natural utility NATUNLD. The NEMSINV programs:

41.INVTRNP2	Add Transaction Menu	Program
42.INVTRNP3	Change Transaction Menu	Program
43.NEMSINV	NEMS Inventory Banner Screen	Program
44.NEUOCDN1	Output Warning Message for EQUIP-OUT-CODE	Subprogram
45.TRNI04P1	Add Transaction I04 (Receipt by Transfer From NASA Installation)	Program
46.TRNI06P1	Receipt by Transfer – From Contractor	Program
47.TRNIDL1	Delete Transaction Processor	Program

will be loaded to the application library NEMSINV, replacing any existing programs of the same name.

3. Load NEMSPCM source library from the dataset:
MSMOV.NEMS.PROD.R620.R1203.SRC

The source programs were unloaded using the Natural utility NATUNLD. The NEMSPCM Programs:

48.PCMMAP	PCM Banner Map	Map
49.TRNUPDP7	Add History Records	Program
50.TRNUPDP8	Update Equipment File Fields	Subprogram

will be loaded to the application library NEMSPCM, replacing any existing programs of the same name.

The source module counts included in this release are listed below:

Natural Source Modules by Type	Count
GLOBAL DATA AREA	0
LOCAL/PARAM DATA AREA	1
MAPS	1
HELP ROUTINES	0
SUBROUTINES	0
SUBPROGRAMS	15
PROGRAMS	33
COPYCODE	0
TEXT	0
PROCESSOR	0
MISCELLANEOUS OBJECTS	0
Total:	50

2.2 List of Source Code Modifications

The following are the modules added, modified, and deleted.

Added Modules:

NEMS

1. FONTMGR2 Program
2. FONTMNGR Program
3. FORM0000 Subprogram
4. FORM1602 Subprogram
5. FORMASC2 Program
6. FORMCNVT Subprogram
7. FORMINVR Subprogram
8. MSD005N2 Subprogram
9. MSD005P2 Program
10. MSM009P1 Program
11. NEUOCN1 Subprogram
12. NEW832N1 Subprogram
13. PCLFLUSH Subprogram
14. PCLWRITE Subprogram
15. PRM832N1 Subprogram
16. PRM832P1 Program
17. PRM832P2 Program
18. PRM833P1 Program
19. PRM834P1 Program
20. RPT832P1 Program
21. RPT833P1 Program

22.RPT834P1 Program

INVENTORY

23.NEUOCDN1 Subprogram

PCM

None

Modified Modules:

NEMS

1. ADH000P1	Program
2. ADH950P1	Program
3. ADH980P1	Program
4. ADH991P2	Program
5. HSTSEQN1	Subprogram
6. HSTSEQP1	Program
7. MSD001P1	Program
8. NAV100P1	Program
9. NEMS	Program
10. NEWLEUN1	Subprogram
11. NEWLOCL1	LDA
12. RPT011P1	Program
13. RPT134P2	Program
14. RPT422P3	Program
15. TRN000P1	Program
16. TRN004P1	Program
17. TRN015P1	Program
18. TRNDELP1	Program

Inventory

19. INVTRNP2	Program
20. INVTRNP3	Program
21. NEMSINV	Program
22. TRNI04P1	Program
23. TRNI06P1	Program
24. TRNIDL1P1	Program

PCM

25. PCMMAP Map

26. TRNUPDP7	Program
27. TRNUPDP8	Subprogram

Deleted Modules:

NEMS
None

Inventory
None

PCM
None

3.0 Pre-Predict Data Conversion

Not Applicable for this release.

4.0 Install Predict

4.1 Data Dictionary Changes

This release will include the new enhancements for Version 6.2.0. Details for changes in this release can be found under Section 4.1.3 Physical File Changes or by performing Predict reporting on the keyword NEMS-6.2.0.

Use SYSDICBE to load the PREDICT modifications from the dataset:
xxMOV.NEMS.PROD.R620.R1203.PRD.

The following NEMS DDM should be generated after the PREDICT load is completed.

NEMS-HISTORY

4.1.1 Inventory of Objects

The object types and inventory listed below represent a comprehensive count of the Predict object modules for this release.

PREDICT Objects by Type:

Keyword	-	1
ADABAS Files and Views	-	1

4.1.2 Storage Considerations

Not applicable with this release.

4.1.3 Physical File Changes

Invert the following descriptor:

NEMS-HISTORY		File # 190								
Ty	L	Field	ID	F	Length	Occ	D	U	DB	S
*-	-	-----		*-	-----	-----	*	*	--	*
	1	COST		N	9.2		D		AI	N

Using the following commands:

```
//DDKARTE DD *
ADAINV INVERT FILE=190
ADAINV TEMPSIZE=??,SORTSIZE=??
ADAINV FIELD='AI'
/*
```

5.0 Catalog Source Code

To be performed by the SESAAS DBA.

Run a batch job to catalog (CATALL) all modules in the NEMS library using the NASA Batch Standard Parameters replacing the existing PS and LS with the following values: PS=23 and LS=80. It is not necessary to catalog the Global Data Area (GDA).

You should receive 35 NATURAL 0303 errors for modules that begin with RPT* that concern page overflow and 27 programs will produce NATURAL 0002 errors. There should be a total of 62 NATURAL errors.

A list of errors found above and dispositions of these results follows:

- To compile the NATURAL 0303 errors correctly, run another CATALL for the RPT* modules in the NEMS library using the NASA Batch Standard Parameters. You should receive 12 NATURAL 0002 errors. Ignore the 0002 errors because these objects are dynamic. You should also CATALL the JRNRPTP1 module using the NASA Batch Standard Parameters.
- The 27 NATURAL 0002 errors from the first CATALL are to be IGNORED because these objects are dynamic.

Run a batch job to catalog (CATALL) all modules in the NEMSINV library using the NASA Batch Standard Parameters. It is not necessary to catalog the Global Data Area (GDA). There should be no errors received.

Run an online catalog (CATALL) on module TRNI34P1 and TRNILOP3 to prevent problems with access to the second screen.

Run a batch job to catalog (CATALL) all modules in the NEMSPCM library using the NASA Batch Standard Parameters. It is not necessary to catalog the Global Data Area (GDA). There should be one NATURAL 0043 error received. See Section 9.0 Installation Checklist for instructions on how to correct these errors.

After all objects are compiled, the NEMS application will run under the NASA On-line Standard Parameters.

6.0 Post-Predict Data Conversion

Not Applicable for this release.

7.0 Perform Release-Specific Procedures

7.1 Add M09 to the Maintenance Table

Performed by SESAAS

Maintenance job M09 must be added to the Maintenance Table. The title for this maintenance job will be MSM009P1 – Delete Past Due NEMS Web Pending Records

7.2 Update Error Message 744

Performed by SESAAS

Error Message 744 should be updated to the following:

ERROR 744 – DESCRIPTOR NUMBER MUST BE FROM 01 THRU 19

7.3 Install Electronic 1602

- If a 100% cutover to laser printing is desired, simply update the JCL that runs MSD005P1 by replacing it with MSD005P2 and perform the additional JCL changes below.
- If a partial cutover is desired within a site then MSD005P1 must be modified to only process forms for printing on the old impact printer; MSD005P2 must be placed immediately after MSD005P1 in the JCL string.

- Additional JCL changes:

Add the following JCL line at the top of the JCL:

```
//HP1602U OUTPUT DEFAULT=NO,CLASS=U,DEST=?????
```

where ???? is the default **laser printer** destination. It may be necessary to add the site as a prefix (e.g. DEST=KSC.?????)

Add the following JCL line to the job step that executes MSD005P2:

```
//CMWKF12 DD SYSOUT=(,),OUTPUT=(*.HP1602U)
```

Add the following JCL statements at the end of the JCL:

Line 000010

??NEMS1 = Replace ?? with the Center Code (AR, DF, GR, GS, J5, KS, LA, MS, or SS)

Line 000020

(????????????,????) = Batch Account Code,Center Defined)

Line 000040

PROCNAME = N83Z (Development, N84Z (Test), or N85Z (Production)

Line 000080

??CAM.NEMSD?.PSWDLIB - Replace with your center's password DSN.

The DEST value might need a routing node (e.g. DEST=KSC.#####).

The job class may be modified.

The message classes may be modified.

DO NOT change the &&&&&&& or ##### values. These are place holders for Userid and printer destination.

```
JCLECARD900670XXXX X    XX/*
JCLEOF  999999XXXX X    XX//
JCL1602 000010           //??NEMS1  JOB (????????????,????) , '#####
1602' ,CLASS=D,
JCL1602 000020           //          NOTIFY=##### ,MSGCLASS=A
JCL1602 000030           //U1602    OUTPUT  DEFAULT=NO ,CLASS=U ,DEST=&&&&&&&&
JCL1602 000040           //JS010    EXEC  PROCNAME
JCL1602 000060           //CMPRINT  DD  SYSOUT=*
JCL1602 000070           //CMWKF12  DD  SYSOUT=( , ) ,OUTPUT=( * .U1602)
JCL1602 000080           //CMOBJIN  DD  DSN=??CAM.NEMSD?.PSWDLIB ,DISP=SHR
JCL1602 000090           //CMSYNIN  DD  *
```

- **This step will be performed by SESAAS to add these reports as core reports. If you already have these reports added as a site unique you will need to delete them.**

Add options 832, 833 and 834 to S05 table with REPORT OPTIONS set to 'Y'es.

832 NEMS-1 BY ECN (ON DEMAND TO LASER PRINTER)

833 NEMS-1 BY ECN (BATCH TO LASER PRINTER)

834 NEMS-1 BY CUSTODIAN ACCOUNT NBR (BATCH TO LASER PRINTER)

8.0 Local JCL Mods

See Section 7.3

9.0 Installation Checklist

- 1.0 Back Up Existing Data
- 2.0 Copy Source
 - 2.1 Copy Source Code
 - 2.2 List of Source Code Modifications
- 3.0 Pre-Predict Data Conversion
- 4.0 Install Predict
 - 4.1 Data Dictionary Change
 - 4.1.1 Inventory of Objects
 - 4.1.2 Storage Considerations
 - 4.1.3 Physical File Changes
- 5.0 Catalog Source Code
- 6.0 Post-Predict Data Conversion
- 7.0 Perform Release-Specific Procedures
- 8.0 Local JCL Mods